

Applicant: Kari Sipilä et al.  
Application No.: 09/881,608  
Art Unit: 1731

18. (original) The method of claim 1 wherein the production plant has a fresh water need, and wherein at least part of the fresh water need of the production plant is taken from a waste water treatment plant of the residential community as purified waste water, which is passed for use through a fresh water treatment system of the production plant.

19. (original) The method of claim 18 wherein the waste water is purified by distillation utilizing waste heats generated in the production of energy and the thus distilled water is used in the production processes to replace some fresh water.

20. (original) The method of claim 19 wherein distillation is used for purifying the production plant's own waste waters for recycling or for reducing the waste water load of the residential community.

21. (original) The method of claim 1 wherein waste waters generated in the production plant are passed to a waste water treatment plant of the residential community for purification.

22-48. (cancelled)

#### Remarks

Claims 1-21 remain pending in the application. In the Office Action dated February 4, 2003 claims 1-21 were rejected as being indefinite. Claims 1-8, 14-17 and 21 were rejected as obvious over Dieter et al. Claims 9-12 were rejected over Dieter et al. in view of Puskar or Krogerus et al. and claims 18-20 were rejected as obvious over Dieter et al. in view of Säfström et al.

The claims have been amended as suggested by the examiner to overcome the rejections under

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35 U.S.C. § 112.

The method of claim 1 starts with two waste streams from a residential community: one of which has been sorted or separately collected to contain mainly combustible waste, and a second which has been collected or separated to contain waste paper and/or board. The first stream is processed by screening to produce a paper and board rich fraction. The second stream is passed to a pulping stage, to a cleaning and screening stage and to a fibre processing line having at least one of the stages of fractionating, deinking, bleaching, pulp drying and papermaking, and rejects from the stages are used as fuel in the production of energy. The invention resides in the combination of the particularly identified starting streams in combination with deriving from the combustible waste a stream of useful fiber, and the processing of the fiber from the fiber waste stream. This differs from Dieter et al., principally in that Dieter et al. starts with a different feed material—namely the entire waste stream instead of the two identified waste streams of combustible waste, and waste paper and/or board. Because the Dieter et al. process starts with a broader waste stream, the fiber separated is not of the same quality as the fiber separated by applicant's process. Applicant's process produces a high quality fiber, and obtains fiber produced from the waste stream selected to contain combustible waste.

Although waste from a residential community can be processed in many ways and the individuals steps may be old, applicant's unique approach may be critical in achieving a higher value from the waste stream. Achieving higher value from the waste stream is critical to making greater recycling economical. Small process changes, if they prove more economically advantageous, can be critical to reducing the amount of material flowing to landfills. The price of recycled materials fluctuates greatly with time, which produces difficulties with using recycled materials in industrial processes because at times the waste materials are unavailable due to high cost, or can not be collected economically because of low market price. On the other hand, a system which is part of the overall residential community waste handling system which produces higher value-added outputs may be

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economical when processing individual recycled materials may not be.

In view of the large economic leverage which may exist where large amounts of material are processed in an environment of constant change in material prices, the person of ordinary skill does not know how to proceed in order to develop an economically viable system. And although the examiner points out that "[A] combination of referenced teachings may be obvious in the technological sense even though business for economic considerations would previously have counseled against such a combination." This presupposes that aside from the economic considerations an approach would be considered by a person of ordinary skill in the art. An obviousness determination always requires an expectation of success, or motivation which is not taken from applicant's disclosure. The examiner has not provided a motivation for performing the method claimed by the applicant.

The Examiner states that the applicants have not shown "unexpected results" and therefore the claimed invention is within the level of ordinary skill in the art. This is not the proper test for patentability. The examiner has the burden of making out a *prima facie* case of obviousness. If the examiner makes out a *prima facie* case, then the applicant must overcome the examiner's case by, for example showing "unexpected results." If the examiner has not made out a *prima facie* case of obviousness and applicant's claimed invention is novel, the application must be allowed.

With respect to claims 9-12, Puskar teaches production of calcined clay pigment from sludge from papermaking, debarking, ground wood waste and bleach liquor. Krogerus et al. teaches that waste paper ash can be used as filler. In both cases the raw material of the ash is from papermaking waste. Both Puskar and Krogerus et al. fail to teach that ash generated as a by-product in the production of energy from combustible community waste (which is not equal to papermaking waste) can also be used in the manufacture of paper or board or in other useful applications.

Safstrom et al. also does not teach taking fresh water from a wastewater treatment plant of a residential community, which is an essential element of claims 18-20.

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Applicant believes that no new matter has been added by this amendment.

Applicant submits that the claims, as amended, are in condition for allowance. Favorable action thereon is respectfully solicited.

Respectfully submitted,



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